



NAGT/USGS 2014 Cooperative Summer Field Training Program



The National Association of Geoscience Teachers (NAGT)/U.S. Geological Survey (USGS) Cooperative Summer Field Training Program is the longest continuously running internship program in the earth sciences. Over the past forty-nine years, over 2,300 students have participated in this program, with many participants proceeding on to distinguished careers with the USGS, with academia, or with industry.

The cooperative program was launched at the Geological Society of America meeting in Kansas City in early fall of 1965 when William "Bill" Pecora, then the newly appointed Director of the USGS, held a meeting with a small group of distinguished professors and officers of the NAGT. Pecora wanted to get the professors' reactions to an initiative that would provide stronger linkage to academia while providing better summer research assistants for the USGS. Pecora suggested that the USGS would provide support by way of internships for outstanding newly graduated geosciences majors, while NAGT would solicit outstanding student nominations from the directors of the nation's geosciences field camps. (Field camp, a tradition in the education of a geoscientist, is an intensive course that applies classroom and laboratory training to solving field-based geoscience problems. As employers value the skills and applications developed in the field camp experience, enrollments have shown a remarkable two-fold increase in the past decade.)

Needless to say, 'Pecora's Plan,' as it became known, met with instant approval.

Although some modifications have been made over the years, the NAGT/USGS Cooperative Summer Field Training Program operates today much as it did from the beginning. With active participation and support from the highest levels of both organizations (including the Director of the USGS), a joint committee oversees the program. The program year begins in September with the field camp directors (now numbering over 120) being provided information about the program. Each director has the opportunity to nominate up to three students, based on their camp enrollment. Nominated students apply by sending a resume, letter of interest, and transcripts to the USGS. At the same time, USGS scientists interested in working with an intern submit a proposal about their field and laboratory projects. A science review and placement panel then matches candidates by their course work, skills and interests with up to five projects. The listing of candidates and accompanying academic information are sent to USGS scientists for their review. This is followed by candidate interviews and ranking for preferred selection. While the interviews provide useful opportunities for candidates and scientists for determining goodness of fit, the USGS scientist makes the final intern selection.

As interdisciplinary system science is a cornerstone of USGS science, all science disciplines are encouraged, and do take advantage of this program. Students hired through this program have continually received outstanding reviews from scientists and supervisors alike.

Over the years, NAGT has succeeded in identifying top-flight students for the program, and the USGS has succeeded in garnering the interest of competent and enthusiastic supervising mentors. The NAGT/USGS Cooperative Summer Field Training Program continues Pecora's vision of greater educational involvement and provides a first rate professional experience to students early in their careers. It is a wonderful partnership that influences the career paths of future scientists in positive and exciting ways.

NAGT/USGS 2014 Cooperative Summer Field Training Program Internship Placements

Intern: Paul Alessio

College: California State Long Beach

Mentor: Jonathan Stock

Location: San Francisco, California

Project: Hydrologic field studies to improve the forecasting

of storm-driven landslides

Intern: Bengino Alonzo

College: Northern Illinois University

Mentor: Seth Moran

Location: Vancouver, Washington

Project: Seismic imaging at Mount St. Helens

Intern: Nikita Avedivitch

College: Macalester College
Mentor: Stephen DeLong

Location: Stephen DeLong
Menlo Park, California

Project: Tectonic geomorphology of the Bartlett Springs

Fault System in Northern California

Intern: Erica Bays

College: Western Michigan University

Mentor: David Walters
Location: Fort Collins, Colorado

Project: Nutrient retention and productivity in Rocky

Mountain streams under alternative stable states

Intern: Heather Bervid

College: University of Washington, Seattle

Mentor: James O'Connor Location: Portland, Oregon

Project: Geomorphology and Quaternary assessment

studies along the Willamette and Columbia River

corridors

Intern: Joseph Biasi
College: Indiana University

Mentor: Scott Minor and Jonathan Caine

Location: Denver, Colorado

Project: Cenozoic landscape evolution and tectonics of

Southern Rocky Mountains and Alaska/Yukon

geophysical/geological reconciliation

Intern:Ben CampanaroCollege:SUNY BinghamtonMentor:Matthew BachmannLocation:Takoma, Washington

Project: Accessing climate change impacts on Pacific

northwest glaciers

Intern: Andrew Canada

College: Sonoma State University

Mentor: David Croker and David Oppenheimer

Location: Menlo Park, California

Project: Network operations of Northern California seismic

stations

Intern: Joshua DeVore

College: University of Kentucky

Mentor: Scott Bennett Location: Golden, Colorado

Project: Geologic investigations of active faults in the Basin

and Range province

Intern: Thomas Doody

College: University of Maryland, College Park

Mentor: Gregory Noe Location: Reston, Virginia

Project: Geologic investigations of active faults in the Basin

and Range province

Intern: Ciel Elizalde

College: University of Texas, Arlington

Mentor: Paul Hackley Location: Gulf States

Project: Improved model assessment and development of

shale-gas systems in the Gulf Coast Basin

Intern: Sydney Gunnarson

College: Western Washington University
Mentor: Cal Ruleman and Shannon Mahan

Location: Denver, Colorado

Project: Utilizing Quaternary geochronology to unravel

geomorphic histories

Intern: Jason Hallman

College: University of North Carolina

Mentor: Rose Wallick
Location: Portland, Oregon

Project: Quaternary mapping along the Willamette River

Corridor, and linking geomorphic features with

Pacific lamprey habitat

Intern: Melissa Harrington

College: University of Washington

Mentor: Denise Akob Location: Reston, Virginia

Project: Microbial degradation of organic compounds in

hydraulic fracturing produced waters

Intern: Erin Hayes

College: University of Rochester

Mentor: Allen Shapiro Location: Reston, Virginia

Project: Transport of contaminants in groundwater

Intern: Anna Hissem

College: Colorado State University **Mentor:** John Takekawa and Isa Woo

Location: Vallejo, California

Project: Evaluating the spatial and temporal distribution of

marine mammals and seabirds off the Northern

Pacific coast

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Intern: Christopher Leach Intern: Dylan Jamison University of Washington, Seattle College: Fort Lewis College College: Mentor: Joan Gomberg Mentor: Thomas Imbrigiotta Seattle, Washington Lawrenceville, New Jersey Location: Location:

Project: Earthquake early warning modeling studies in the Cascadia Subduction Zone Fate and transport of biodegrading chlorinated solvent contaminants in fractured-rock aquifers

Michael Jeletic Intern: Natalie Leibovitz

College: University of Oregon College: Northeastern Illinois University

Mentor:Jennifer MoraceMentor:John NimmoLocation:Portland, OregonLocation:Menlo Park, O

Intern:

Location:Portland, OregonLocation:Menlo Park, CaliforniaProject:Assessing foodweb resources for juvenile salmonidsProject:Modeling and measurement of unsaturated zone

in the lower Columbia River flow processes

 Intern:
 Clayton Jernigan
 Intern:
 Robert McDermott

 College:
 University of Alabama
 College:
 University of Pittsburgh

 Monton:
 Walter Manner

Mentor:Jonathan GlenMentor:Walter MooneyLocation:Menlo Park, CaliforniaLocation:Menlo Park, California

Project: Geophysical studies relating geothermal, mineral, **Project:** Earthquake hazards studies in the Central and

and water resources to natural hazards in the Eastern U.S. Western U.S.

Intern: Genevieve Kidman College: Coulter McPhail
College: SUNY Fredonia

College: Southern Utah University Mentor: James Kuwabara
Mentor: Tom Cleasby Location: Menlo Park, California

Location: Helena, Montana Project: Benthic nutrient flux of biologically reactive solutes

Project: National rivers and streams assessment survey in the headwaters of the Klamath River Basin

Intern:Krystal KielIntern:Daniel MorelCollege:Oregon State UniversityCollege:Macalester College

Mentor:John LaneMentor:Perry JonesLocation:Storrs, ConnecticutLocation:Mounds View, Minnesota

Project: Surface and borehole geophysical surveys for **Project:** Assessing the influence of natural copper-nickel

hydrologic framework assessment bedrock on water quality

Intern:Talia KleinIntern:Monica MustainCollege:Brigham Young UniversityCollege:Illinois State University

Mentor:William StephensonMentor:Jonathan GlenLocation:Golden, ColoradoLocation:Menlo Park, California

Project: Geophysical investigations of hazardous faults and **Project:** Geophysical studies relating geothermal, mineral,

seismic ground motions for earthquake hazard and water resources to natural hazards in the

assessments Western U.S.

Intern:Todd KnobbeIntern:Tanya PetachCollege:University of ArkansasCollege:Harvard UniversityMentor:Cliff Hupp and Edward SchenkMentor:Geneva Chong

Location: Reston, Virginia Location: Jackson, Wyoming

Project: Interactions between riparian wetland geomorphology, hydrology and ecology pertaining Plant phenology impacts on migration and fitness of Mule Deer

to ecosystem restoration

Intern: Alexandra Pickering

Intern:Jacob KolkeCollege:San Francisco State UniversityCollege:University of Minnesota, DuluthMentor:Shane Detweiler

Mentor: Jeffrey Chaplin Location: Menlo Park, California
Location: Pennsylvania Project: Geological and geophysical studies of the San

Project: Chemistry of groundwater wells in Pennsylvania Andreas Fault system

counties with contrasting amounts of

unconventional shale gas extraction

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Ellyn Rickels Intern: Intern: Evan Thaler

College: Iowa State University University of Arkansas College:

Mentor: Tom Cleasby Mentor: Judson Harvey Helena, Montana Location: Location: Reston, Virginia

Project: National rivers and streams assessment survey Project: Understanding the ecological repercussions of

high flow events in suburban streams

Intern: Lucas Rietmann

College: Oregon State University Intern: Kara Vadman Mentor: Michael Lisowski and Benjamin Pauk College: Colgate University Vancouver, Washington and Yellowstone Mentor: Meagan Eagle Gonnea Location: Project:

Geodetic monitoring of Cascade Range Location: Woods Hole, Massachusetts Impact of nitrogen and sea level rise loading on Volcanoes and Yellowstone National Park Project:

carbon sequestration in coastal salt marsh

ecosystems

Walker Weir

Intern: Timothy Robertson College: University of Missouri

Intern: Mentor: Nancy Simon College: Reston, Virginia Location: Mentor: Geochemical analyses of terrestrial input into Project:

Denver, Colorado Location: Upper Klamath Lake

Project: Developing new automated devices and methods Intern: Aaron Salin

for analysis of stable isotopes in geological,

hydrological and biological materials

University of California, Santa Cruz

Craig Johnson and Matthew Emmons

College:

University of Texas at Austin Mentor: Carol Prentice

Menlo Park, California Location: Project: Paleoseismic studies of active faults in Northern

California

Intern: Tyler Schleider

College: Oregon State University

Mentor: Albert Hofstra Location: Denver, Colorado

Project: Melt and fluid inclusion analysis for resource

studies

Intern: Brian Selk

College: Brigham Young University

Jeffrey Chaplin Mentor:

Location: Western Pennsylvania

Project: Nitrates and pesticides in groundwater relating to

human health in siliciclastic aquifers

Intern: James Smith

College: Louisiana State University

Sheila Murphy and Deborah Martin Mentor:

Location: Boulder, Colorado

Project: Response of Colorado Front Range watershed to

fire and flood disturbances

Luke Stevens Intern: College: Concord University

Kristen Hart and Michael Cherkiss Mentor:

Location: Florida

Project: Sea turtle movements and habitat-use, and

American crocodile nest monitoring

Intern: Kelsey Taylor College: University of Oregon

Mentor: Erik Beever

Location: Yellowstone, Glacier NP, Nevada, Oregon Project: Investigating factors determining the niche of the

American pika living in rocky talus slopes

Crystal Wespestad Intern:

Indiana University, Bloomington College:

Mentor: Katherine Scharer Location: Pasadena, California

Project: Earthquake activity and fault slip rates along the

southern San Andreas Fault

Intern: Jenna West

College: University of Texas at Arlington

Mentor: Kenzie Turner Location: Denver, Colorado

Project: Cenozoic landscape evolution of the Southern

Rocky Mountain Regions

Intern: Patrick Whalen

College: University of Kentucky

Mentor: James Vallance

Vancouver, Washington Location:

Project: Geologic mapping and stratigraphic studies at

Cascade volcanoes

Shana Wolff Intern:

Intern:

College: University of Wyoming

Mentor: Ty Coplen Location: Reston, Virginia

Project: Geographical variation of elemental and isotopic

signatures to determine the provenance of

Rosewood from Madagascar

Holly Young

College: Idaho State University

Mentor: Ian Jezorek and Patrick Connolly

Location: Cook, Washington

Restoration assessment of fish population in the Project:

Wind River Watershed